1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 18] Western Mono NS25
Y
N
285

TWINED BASKET TYPES

		YOKUTS			WESTERN MONO	
		CHUNUT	WUKCHUMNI	MICHAHAI	WOBONUCH	WAKSACHI
1	close twine, always 4 red bands in plain or herringbone pattern. COOKING BASKET	?	pele'no	pe·no	pelen	tupono'ß
2	close twine, stiffened with soaproot juice. BURDEN BASKET	obtained from the foothill tribes	o'nas	o'ñoß	o'noß	wono pe·no ?
3	medium open twine, handled. SEEDBEATER	ho'lai	yamaki to'ayuk	čo' phoi	pelso·'	lonoko
4	fine open twine, no handle. SIEVE	?	to'ayuk	čo'phoi	pu·'en	?
5	coarse open twine, no handle. FISH SCOOP AND CARRIER	?	o'pel	čo'phoi	pu·'en	?
6	close twine, stiffened with soaproot juice. WINNOWER	unknown	obtained by trade ?	obtained by trade ?	to'o'li·'o	?
7	open twine; cage has lid. HANGING BASKET OR CAGE	used by all tribes (native word not recorded)				

Fig. 2. Yokuts and Western Mono twined basket types.

302 could paint his face any way he liked if he did not want to follow a totemic pattern. After ceremonial washing a man's face was covered with red paint; sometimes a little white paint was put on a woman.

The following information is from Mr. E.W. Gifford, who kindly put his data on Tachi moieties at my disposal.

302 The Tachi employed moiety face paints. The
616 toxelyuwic painted a "pink" stripe of wild rose-
[824] bush powder[48] from the edge of the hair on the forehead down to the tip of the nose, and a horizontal stripe under each eye. A small black spot was added under each horizontal stripe of pink.

The nutuwuts moiety painted the right side of the face solid white, the left solid black. No spots were added.

It seems probable that the informant who gave these data described patterns characteristic of some animal (lineage totem) associated with each moiety. There is no suggestion of specific moiety patterns from any informants of
[613] moiety-divided tribes. The lineage is the essential unit; but if forced to characterize moieties, an informant will choose some important animal (lineage totem) of each, most frequently Coyote and Eagle. Without further detail being given, it would appear that all persons of one moiety or the other had these animals as totems. I believe it is thus with the two paint patterns described to Gifford: that the informant oversimplified.

Money Manufacture

436 The shells for money were obtained whole
321 from the Tokya (Chumash, Salinan, or other
[439] coastal people to the west). By laying them on a rock and giving them a sharp blow with a stone held in the hand, they were broken up into several parts, which were again cracked into smaller pieces by the same method. Each piece was given a circular shape by rubbing down its edge on a large, flat, hard rock. The
[412] discs were then drilled by means of a drill (wa'lai) of bone which was imbedded in the end of a button willow stick. The palm of the left
[237] hand,[49] gummed with fish glue, rolled the drill on the left thigh while the right hand pressed the disc against the rotating tip.

---

[48] Concerning the possible derivation of this powder Professor M.L. Gardner, of the University of California, writes me [Gifford]: "There is a fungus growing on certain species of roses which causes distortions in the branches of the rose, such distortions being filled with masses of orange colored spores. It is barely possible that these might make a temporary pigment."

[49] Practices with the left and right hands are uncertain with this informant, who is herself left-handed.

796 her husband, W.At., who had never seen it. J.A. knew of it, as performed by the Wukchumni and Gawia, but she could not describe it well. She [237] knew of one man, Sapa'te, who did this dance; 534 the singers used cocoon rattles; it was done in the daytime. It took place in the fall, after the acorns were down; acorn mush could not be eaten, otherwise.

Bear doctors, however, were not uncommon in the lake region.

The Rattlesnake Ritual was not made by the Chunut, Tachi, or Wowol; it may have been made by the Gawia, Yokod, and Telamni; J.A. definitely attributes it to the foothill people. She once saw Pušl:'l:n, a Choinimni, "go around with a snake" which he stepped on; that part [752] was called tatlawas. She knew of no purpose in the performance: when one was bitten by a rattlesnake one called an ordinary sucking doctor. Neither did she know of coyote impersonation in this or any other connection.

First-fruit rites were merely called "little party" (witi lonu'iw:s), and seem to have been scrupulously observed, yet remained unelaborated. J.A. thinks the Tachi and Wowol were like the Chunut in the observation of these rites, which pertained primarily to 796 berries and seeds. All seeds (pa'was, so'pas, 616 tsos, su'kun, ya'ha''al, tsa'm:t, and taltoi'ya [mushrooms]) were classified as Tokelyuwich, whereas berries, birds, and animals[100] were Nutuwich. The little ritual was a reciprocal function. The moiety associated with the foods, as Nutuwich was with berries, would obtain a supply of them when they first became available each year. The chiefs called the people to assemble, and the Nutuwich people presented them to the Tokelyuwich, who thereupon ate them. Then the Nutuwich were free to do so; the new crop remained tabu to them until the Tokelyu- [824] wich had eaten of it. If Nutuwich people ate blackberries (ma'm:l) too soon, their children would "break out with berries all over their bodies." The same procedure was followed with seasonal foods associated with the other moiety.

796 J.A. referred to the Bear Dance and acorn tabu in this connection, knowing it as an analogue in foothill culture. However, she did not know of any first rites in connection with salmon or migratory birds. Clover "belonged to [262] everybody" and was eaten at any time of year; tobacco was also freely used. She was unable to give any details of the ceremonial eating, to name the participants, etc.; it seems reasonable to assume that the chiefs and their families were the first to partake as in the northern foothill region.

A seed-growing dance, which was at once a prophetic ritual and display of magical powers, was given each spring by one or two shamans who

---

[100] J.A. could not classify the Nutuwich foodstuffs, rather vaguely making "berries" the sole food involved for this moiety.

343 [824] one each side of the entrance. Manzanita wood about one inch thick was preferred, as its smoke was believed to be less irritating to the eyes than that of other woods.[149] About the edges of the room lay such tule mats as various individuals brought in for their own comfort. A flute-player might habitually thrust his flute up into some little cranny at the roof's edge (J.P., S.G.).

Kroeber's unlocalized description of the Yokuts sweat house agrees in general with the above.[150]

The sweat house, moah or mor, is a true sudatory, oblong, dug down several feet, with a ridge log resting on two posts at the ends, and dirt covered. It was small, not over 15 feet in length, and in no sense a dance house or assembly chamber.... The door faced the creek, or south, and was sometimes sheltered by parallel wind-breaks.

The single-post sweat house differed from the larger form only in size and in the relation of roof poles to center post. The center post was forked and supported a few radiating roof poles laid into its crotch. Others were laid against these, and the resulting bunch of pole ends were lashed together and about the post with coarse rope. The interstices were filled with slender rods, and the whole covered like the larger form. No door frame was made, the doorway being merely a narrow opening between poles spaced apart for the purpose (J.P., S.G.).

The Yaudanchi sweat house was a two-post affair. The floor was excavated about two feet. Then a frame of sticks radiating from a center beam to the ground was lashed in place, a willow roof laid over it, and the whole thing covered with mud. The doorway was about 4 feet by 4 feet, which seems excessively wide. The fire was just within the entrance. About ten men were accommodated. Any man was free to enter and sweat, but youths did not attempt it until about twenty years old. Usually there were two singers who sang during the evening sweat.

342 Dwellings.---The construction of a house was a family affair; friends helped each other only when assistance was a physical necessity to the builder. Some men might build a little house for an old woman who had no relatives, but more often such a person would take up residence in an abandoned house or vacant storehouse. The work of house-building was divided. The man of the family obtained the poles and heavy withes for the framework, dug out the floor space, and set up the framework. In the

[149] The Wintu also preferred manzanita wood (Du Bois, Wintu, 122).

[150] Handbook, 522, 523.

[text continues on p. 63a]

411
237 The arrow, shikid, generically, had three forms among the Yaudanchi, known as t'uyosh, diibaku, and wuk'ud. The war arrow had no foreshaft, but a rather long wooden point, notched. It measured from the finger tip nearly to the opposite shoulder or a trifle more than the possible pull of the bow.... The ordinary hunting arrow had a long sharpened foreshaft, but no real head. The deer arrow had foreshaft and flint head, but the foreshaft was socketed without glue or tie, so that the main shaft would disengage after hitting.

Powers saw two types of arrows:[178]

411
[824] Of arrows, the Indians living on the plains made some for themselves of buttonwillow, straight twigs of the buckeye, and canes, but the most durable came from the mountains. There are two kinds, war-arrows and game-arrows; the former furnished with flint heads, the latter not. The shaft of the war-arrow consists of a single piece, but that of the game-arrow is frequently composed of three pieces, furnished with sockets so adjusted as to fit into each other snugly. When the hunter, [224] lurking behind the covert, sees the quarry approaching, he measures quickly with his eye the probable length of shot he will have to make, and if it is a long one he couches his arrow with three pieces; but if a short one, with extraordinary quickness he twitches it apart, takes out the middle section, claps the two end sections together again, and fires. An arrow made of what we should call the frailest of all woods, the tender shoot of a buckeye, and pointed with flint, has carried death to many a savage in battle. I have seen an Indian couch a game-arrow, which was pointed only with a section of arrow-wood, and drive it a full half-inch into the hardest oak!

411
324 The arrow straightener used by all Yokuts has been described and illustrated by Kroeber:[179]

The prevailing arrow straightener among the Yokuts is the Southern California form: a well-shaped rectangular block of stone, often rounded or ridged on top, and invariably with a polished transverse groove. This implement is undoubtedly associated with the employment of
411 cane for arrows: the Yokuts are known to have
322 used the plant, though not exclusively. The joints were warmed in the groove and bent by hand or on the ridge after the stone had been heated; the groove was also used for smoothing. The holed straightener of wood or horn for
[171] wooden shafts, as employed all over northern California, has not been reported from the Yokuts.[180]

Cane arrows were realigned before and after each usage. The cane shaft, with foreshaft removed, was grasped at each end and drawn across the hot groove with a rolling,

[178] P. 374.

[179] Handbook, 530, pl. 49, c.

[180] Latta (Uncle Jeff's Story, 20) recently reports that a perforated stone disc was so used by the Choinimni. A.H.G.

283 rocks without being allowed to dry, and pounded with a stone, then rolled on the thigh into a two-ply cord (see Michahai-Waksachi, Pt. II, for fuller account of method). Making of cordage was a man's task throughout (M.L.).

A medium-weight cord was made of milkweed (ša'). It was used for wide carrying bands, tying cords, fish and duck nets, trap strings. Its manufacture is described by Kroeber for the Yokuts generally.[199]

[824] The commonest string material was milkweed, Asclepias, called shah or chaka. The stems were collected in early winter, the bark or covering peeled off, and shredded by rubbing between the hands. The thin epidermis was then removed by drawing the mass of fibers over a stick. The fibers were not separately disentangled, but loosely rolled together as they adhered. Two of these rolls were then twisted tight, on themselves as well as on each other, by rolling on the thigh with the spit-into hand, the other hand holding and feeding the loose ends. The exact process of adding further material is not known; it consisted probably of rubbing together the ends of a mass of fiber, perhaps with some twist. String was two-ply.

[824] Another and finest string (čitːk) was made of hemp or dogbane. This was used for the ordinary narrow tumpline, carrying and head nets, belts, bead stringing. M.L. said ho' was willow, ša', milkweed, and čitːk, nettle. Neither the "hemp" nor "nettle" was identified by the recorder.

482 The carrying net (wa'dak) and tumpline
283 (šu'ñdːč, any rope or band for carrying burdens) were always made of hemp (?) according to M.P. and J.P.; other informants (M.L. and S.G.) say that the finer grades of milkweed twine were used (fig. 13, a). Women always placed the tumpline across the upper forehead, occasionally wearing a coiled basket cap for protection. Men placed the burden strap across the upper chest and deltoid muscles (see vignettes, fig. 13). Bundles were never carried on the head and seldom in the hands.

286 Formerly the making of straps and nets was a man's work. A carrying net was begun by coiling a length of cord around the left hand four or five times and tying the ends together, forming a ring about four inches in diameter. (The dimensions herein are those of an ordinary carrying net owned by the informant, M.P.) This was fastened to a ramada post, a tree, or any convenient place at about the shoulder height of the maker. The twines used were always of double thickness. That is, a length of twine was chosen and its center point thrust into the split end of a wooden needle: the two dangling ends were rolled together on the thigh
[284] to form a single length of twine. The open end was fastened to the rope ring with a few half-hitches, then the netting stitch began.

[199] Handbook, 534.

[text continues on p. 85a]

252 nuts fell out. The nuts were gathered up and carried home in burden baskets. The nuts to be
262 eaten were first parched with coals on a basket tray. Care was needed to prevent scorching. Sometimes, after being cooked, they were pounded in a mortar hole, the greasy mass then being rolled into balls and eaten as an accompaniment to acorn mush.

[222 481] According to N.W., when pine nuts were wanted men climbed the trees and twisted them off; today they cut them off with a rock [sic]. Ripe cones, probably those left beyond reach, shed their nuts on the ground. The whole cones were set on the fire to burn off the pitch. Then their "leaves" were knocked off to get out the nuts. Good nuts are brown at one end; [224 286] those black all over are "no good." The nuts were kept in sacks made of milkweed string. They were shelled as needed, eaten directly, or pounded and mashed into balls to eat with acorn mush.

[439] This year M.W. climbed trees and got pine nuts. Sometimes these are sold to visitors at the hotel in Coarse Gold.

262 Meat.--The meats commonly eaten were gray squirrel, ground squirrel, gopher, jack- and cottontail rabbits, fox, wildcat, and deer, said J.R. Gopher snakes, but not rattlesnakes, were eaten.

Bear meat was eaten by some, but others thought bear "too human." "He lies down just like a man when he is dead, has breath like a man." Moreover, bears sometimes killed and ate men; hence, a bear, having possibly done this, was not fit to eat. This was the Chukchansi attitude.

Meat definitely not eaten was that of eagle, buzzard, chicken hawk, coyote, and dog. [441] However, J.R. said that to the south the valley Yokuts ate dog meat.[90] Elk was not eaten by Chukchansi, since it was not available, nor was buffalo (sic; antelope?).

Horse meat was eaten in the old days. Men would go to the valley. They made a gear of wood[91] which was put on a horse's nose. Then the captor would jump on its back, without saddle or blanket, and bring his prize up here. Some people kept horses to ride; others, after getting them here, shot them through the heart with an arrow to provide food.

252 Meat was roasted on coals; was never cooked in a basket. Deer meat was cut in pieces about twelve inches square. As it swelled during cooking, it was punctured with sharp sticks "to let the steam out so it won't burst."

251 Meat cut in strips was hung over a pole to dry into jerky. It was turned every two or

[90] This bears out the statement of a neighboring Kechayi, that dog meat was not eaten, while an eyewitness saw it eaten farther south (cf. Gayton, Ghost Dance of 1870, 72, and Estudillo among the Yokuts, 75).

[91] Not identified. The shrub grows around Coarse Gold, "it won't break -- is just like leather."

[P. 1826] Chuckchansi

Medicines

278 824 757 Medicinal plants and materials were not stored but were gathered as needed. Ordinarily, when a person was hurt or slightly ill, people would tell him about medicines they knew, would get and prepare them, and either give instructions or apply them themselves. American [177] medicines are bought now: "it looks like they work better," said J.R. Several medicines were known to this informant.

A plant called pasal (Miwok?) which sprouts in spring, has leaves three to four inches long shaped like beech leaves; the leaves are always sticky. A leaf of this was placed in the mouth, but not chewed, and the saliva swallowed when one had a cough or cold. The same plant was used as a boiled decoction for rheumatic pains. About a handful of leaves would be cooked in a pint of water to make a strong dark liquor; this was washed, not rubbed hard, on the afflicted part at night.

Another bush, called lokot'i, was like pasal, but a bit larger with larger leaves. It was put to similar use. The bush grew along creeks and in rocky places in the mountains.

A plant called 'opkule, with yellow flowers and roots a foot long, was boiled to make a soothing medicine. Leaves and roots, but not the flowers, were cooked and the hot liquor was rubbed on painful spots. "It will stop pain pretty quick." All these decoctions were used on open wounds, but they were not potable.

A vine which climbed "just like a grapevine" was boiled and the liquor used to wash cuts, which were said to heal quicker and not to be painful when so treated.

[752] A medicine for rattlesnake bite was known but not considered as effective as a shaman's cure (see "Rattlesnake Shaman"). This was a plant "which grows with a little bunch on the end of it, called s'ono[1]." It was boiled and the liquor washed onto the wound. It "usually" cured the bite. When this method was used, the shaman's services were not.

[751] To prevent snake bite women who were going seed-gathering would rub the flower and leaves of the tea plant (dowunnil, peppermint?) over their feet, ankles, and legs. The smell alarmed the snake so it would not strike, or at least would rattle a warning.

Wormwood (mesini) was used for rheumatism, said N.W. It was rubbed between the hands to extract the juice which was then rubbed on the sufferer. Sometimes the plant was soaked in water and the solution used to lave with: "you took a bath in it." The same solution was used for ceremonial washing at the Mourning Ceremony.

Peppermint tree (?) was "good for rheumatism and for swelling up."

A drastic cure for rheumatism was the application of fire to the painful area. The

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 183 a] Chuckchansi

area was covered with dry wormweed which was then fired. Mike Wyatt once had rheumatism in his shoulder. His relatives made a bowl of this medicine, applied it to his shoulder, and lighted it. They did this several times, whenever the pain came; then it was cured.[96]

Hunting

Mice were trapped between flat stones by propping the upper stone on an upright stick resting on an acorn. Inferentially, these traps were set out at night. In the morning the owner went out, collected his quarry, then threw them on the coals to cook just as they were. A little mouse made just two mouthfuls, said J.R. Only mice were caught this way.

Tree squirrels were shot with arrows or captured by trained dogs.

Ground squirrels were drowned out of their holes in wintertime by digging drains to run water into their runways. When an animal emerged, it was struck on the head. J.R. many times helped his father at this, which was a common resort in winter when food was scarce.

To obtain deer, drives were organized by several men in a community. At a deer drive each man knew his position and the territory he had to cover. The usual method was to drive "around a mountain" [probably a large hill] in circular formation. As the men were closing in they shot any deer that came within range. Of those encircled, they killed all they could, although some invariably escaped. "What they shoot, never gets away. They die pretty quick. I have seen them shoot with the bow and arrow, you know. They die quicker than with the bullet. When they shoot the deer, you know, he gets sick and dies, just a little way off." So said J.R.

Up at Wowo·na (Miwok territory) the deer-drivers deployed around a mountain which had a flat rock on top and one precipitous side. They pressed the deer up the mountain until they were forced to huddle or jump off. Those that did not destroy themselves by leaping were shot.

In the evening as much of the game as possible was packed home. Often this method netted more meat than could conveniently be carried. Hence some carcasses were left overnight, hung head down by the hind legs, in trees. In the morning the hunters would return to skin them.

A man could carry one deer by means of a tumpline. The animal was skinned, all save the legs from foot to knee [and the entrails removed?]. The legs were tied together and the carcass packed on the back. The blood was

[96] An elderly white man told me of his own experience. He propped his rheumatic leg near a hot stove; he fell asleep and woke to find his leg painfully burned and blistered. However, the rheumatism was not felt thereafter.--A.H.G.

1: Gayton E-5 (1925-1930) 1948 NS29 Yokuts NS29
[P. 188 9] Chuckchansi

343 251 J.R. described a granary covered with pine needles which shed water; the top was covered. The contents remained dry all winter. To get at the acorns a little hole was poked at the bottom which allowed them to drop into a sack [171] or basket. This type of granary was used here (Chukchansi) and at Awa´ni· (Miwok).

MANUFACTURES AND UTENSILS

285 Baskets.---The following basket types were described and named by the informants N.W. and J.R. Cooking baskets (so'iyun) were from 1 to 2 feet deep. Gift and washing baskets ('tewis) for the Mourning Ceremony were about 2 feet in diameter at the bottom, 3 feet in diameter at the top, about 3 feet deep. Small basket for pouring washing water (k'olis 'tewis) was said to be the same shape as the big basket. Winnowing trays (po'o'yi) were flat, circular. Burden baskets were 3 to 4 feet deep, of conical shape; carried by means of a tumpline 2 inches wide. Seedbeaters were about 10 inches across at widest part of their oval, four inches deep, and had a little handle.

Several Chukchansi objects appear in plate 1, Part I, which shows a Yokuts ethnographic collection at the Peabody Museum of Harvard University. These are the bowl-shaped coiled basket with feather and red wool orna-- [272] mentation (toward upper right, second from top); the open boldly striped twine basket (left center) which was a strainer used when making manzanita cider.

525 Also Chukchansi are the six gambling sticks (bottom center) and the two pairs of hand-game bones lying at the tips of the Chukchansi arrows (bottom horizontal).

352 854 Cradles.---In N.W.'s house there is a grandson, Kenneth, about eight months old (1938). All the following information was derived from that situation, N.W. speaking, Lillian, the infant's mother, interpreting.

A baby's first cradle was not made until it was born "so they would know how big to make it." The work was done by the paternal grandmother. It took N.W. three days to make K.W.'s cradle, which is described below.

The first cradle was about 20 to 26 inches long, the back being a stiff twined frame, just as for the later cradles. The foundation was a single layer of sourberry-bush roots, twined with strips of roots of a water plant.[283] The horizontal twining was in groups of three rows. The foot end was left unfinished or covered [824] with a piece of soft hide. The whole cradle 284 was edged with a chaparral brush (Ceanothus?) binding, bound on with monoxil.[284]

---

[283] Roots of a river plant with sharp edges like grass, but no flower (carex?).

[284] A plant with purple flowers which "grows north some place" (redbud?).

412 in diameter, said N.W. (3 to 4 ft., 1 in., said J.R.). The wood, yellow and hard, was from a long straight limb of a tree growing [824] more abundantly at North Fork than at Coarse Gold. (It was mountain mahogany, grew around Coarse Gold but not at higher altitudes, said J.R.) The limbs were straight, grew close to the ground. The point seldom became dull. The stick was operated with a paddling motion, the digger bending over; "sometimes one stood up but that was too tiring" (N.W.). All types of digging were accomplished with this instrument: for all root materials, postholes, graves.

[824 222] Long poles for shaking down acorns were made of "peppermint wood." They were crooked at the end by heating and bending while pliable, said N.W.

412 322 Soaproot brushes were used for all brush requirements: hair brushes, sweeping up acorn meal at mortar holes, washing and scrubbing baskets, sweeping the house floor, etc. They were made in several sizes, from one foot wide down to little ones of one or two inches. About midsummer, July, women went out with digging sticks and obtained sackfuls of the soaproot plants. These were made up into brushes at once as they do not need to be dried. First the fibrous exterior was removed; then the bulbous interior was put on a bed of coals, buried, and left to roast at least half a day. When removed, the bulb is "like potatoes"; the skin will rub off. Actually the bulb is layered, onionlike, and the inside of each layer contains a soapy substance. Layer by layer the material was scraped off with the teeth (today a knife is used) and chewed. It turned white; it was then deposited in a basket to be used later as the platic handle of the brush.

The fibrous exterior was then taken. The bottom, coarser ends, which served as bristles, were pinched together firmly and bound between two sticks.[109] The upper end, which became the interior of the handle, was twisted tight, squeezed, and bound up. Two or three layers of root fibre were needed for an average-sized brush. All were bound firmly together, through and through. The binding cord was not specified; presumably it was milkweed string. Finally, the handle was wrapped round and round. Then the soapy plastic was smeared on; its gluey quality allowed it to be perfectly smoothed. The two sticks on the bristle end were still in place and by these the brush was hung up to dry, either in the sun or in the house. One week was needed for the complete hardening process.

Sometimes brushes were made from fibres of uncooked roots which were used for washing purposes; they have light-colored bristles. The bristles are said to turn dark in cooking. [But, above, they were also said to have been removed before cooking; an irreconcilable state-

[109] Barrett and Gifford illustrate soaproot brushes at this and other stages of manufacture (ibid., pl. XXXVI).

411 Arrows were of an unidentified wood.[113] For the sinew-backed bow they were about two feet, six inches in length. Three split feathers were fastened on with wet sinew; these were slightly spiraled to make the flight straight.

The same type of bow and arrow was used for fighting as for hunting, said J.R. "You can't shoot very far with an arrow; it doesn't go straight. You have to shoot high, let it come down on the target. They can shoot farther but can't kill anything if it is very far off."

[324] The recorder saw four arrowheads at the Wyatt's place. These were called flint, but Thrall thinks they were of obsidian.

Four Chukchansi arrows in the Peabody Museum (specs. 76475) are of cane with inserted foreshafts. Their dimensions are: (1) shaft, 26-1/2 in. plus 5-in. foreshaft; (2) shaft, 29-1/2 in. plus 7-in. foreshaft; (3) shaft, 30 in. plus 7-in. foreshaft; (4) shaft, 30-1/2 in. plus 7-in. foreshaft. Sinew wrappings on forward ends where foreshafts are inserted measured: (1) 1-1/4 in., (2) 1-1/4 in., (3) 1-1/2 in., (4) 1-1/2 in. Three vanes of feathers, not spiraled, on each arrow are trimmed straight off at the butt ends. They ride free from the arrowshaft except for the binding at each end; their free lengths are: (1) 2-1/2 in., (2) 2-1/2 in., (3) 3 in., (4) 3 in. All the shafts are 3/8 in. in diameter.

MISCELLANEOUS DATA

501 Boats and weirs.--There were no boats or rafts for crossing rivers. Only in play would boys sometimes get logs, roll them in the water, and ride downstream on them.

227 In Chukchansi territory Powers saw fish weirs with inserted traps into which fish were driven from upstream by means of a brush sweep similar to that of the Wobonuch (fig. 3, b); see below. They also speared fish from a booth over the water like that described by Mayfield for the Choinimni.[114]

436 321 Money.--Several kinds of beads were shown Miss Thrall by N.W. and C.D. who said they were "grave beads" and named them as follows. The descriptions are Miss Thrall's.

Supna: cylindrical white bead, 1/4-in. long, same diameter, small hole through center. Said to be cut from a larger bead about an inch long. One bead (long or short?) was worth a

[824]

[113] From a bush which grows beside creeks, is something like willow, but has a nearly round serrated leaf. The wood is straight and tough. It is not common, just a few bushes grow near J.R.'s place. It grows about 8 feet tall "like an elderberry."

[114] Powers, Tribes of California, 376.

847
278 medicine. A shaman's help was never sought for abortion.

844 Some women had a child every year. Of
163 twelve or thirteen births only "one, maybe six,
165 maybe nine" would live to become adults. Some died in infancy, a disaster blamed on evil shamans.

842 There were few cases of sterility: "most people who married had children; some didn't."

844 Birth took place in the dwelling, not in a special structure, said N.W. Normally, the woman's mother and sister or an aunt helped her; her mother-in-law might also do so. No men nor childless women were allowed in a house where a birth was taking place. [The birth procedure was not described.]

845 If parturition was difficult, scrapings
278 from a bear's claw were put in water for the
237 woman to drink, and the decoction was also rubbed on her head and hands. N.W. said this was "better than a doctor." It was a common practice; the scrapings might be got at any time from someone who had killed a bear and would then be kept on hand for use as needed. J.R. said that when a bear was killed some man, not a shaman, would get a claw. He would keep it, hang it up to dry, until it was needed to help some woman in childbirth. If labor was unduly delayed, the claw would be got, scraped into a basket of water. The parturient drank this decoction, and immediately the baby came. It was thought that the bear-claw drink so frightened the infant that it came out at once. This medicine was never used for any other purpose.

Another method to help difficult labor was to hold scorched whippoorwill feathers (wul'wul, whippoorwill) under the woman's nose.[119]

844 The baby was bathed at once in wormwood
278 water. The first cradle was not ready, but was started as soon as the paternal grandmother got the baby's size. The cradle-making took about three days. The umbilical cord was buried.[120]

842 Naming.--"It was one year or so, sometimes
163 longer, before a young couple had their first baby. There were more children then [in old times] than now," said N.W. Neither sex was preferred.

553 The infant was named shortly after birth,
852 according to N.W., and kept that name throughout life. The paternal grandmother usually selected the name, which would be one from the father's side of the family. If the person for

[824]

[119]The bird, later identified as whippoorwill, was described as follows. "It is a brown bird a little smaller than a pigeon, but with a big mouth. The color is like dirt; you don't see it. It swallowed a deer once. It is speckled white, just a little. It has short legs. When it flies it makes a noise like wal-wili (ɬ ɬ ɬ). It doesn't make a whirring noise with its wings when it starts to fly but is silent like other birds. It flies in the evening, not much in the day. It has black legs and beak. It stands 5 inches or so tall."

[120]Kroeber, Handbook, 499.

1; Gayton E-5 (1925-1930) 1948 N529 Yokuts N529
[P. 202 9] Chukchansi

525 put the bones in their fists, which they gyrated rapidly, or put behind the back, ending by crossing their arms and holding their fists under each armpit. The guesser, on the opposite team, pointed at his chosen location for the white bone. If the guess was correct, the bones went to uhim (the guesser); if incorrect, one of ten counters was given the holder. When one guess was correct, but the second wrong, the holder became the next guesser. Score was kept by a scorekeeper who held ten counters. The partners first acquiring all ten counters won. Then they rested awhile, put up more stakes, and then began again. A crowd of on-
[606] lookers always stood by, carrying side bets. No moiety opposition was followed, according to J.R., who understood the moiety situation well. M.N. added that there might be several people on each side but only four active players at a
[533] time. There were many songs which these other members of the team sang. The holding side sang to try to confuse the guessers.

526 Shinny.---In this game, said M.N. a ball is hit with sticks toward goal holes about one-half mile apart. The holes are marked with posts. Each side defended its goal. The players stood between the posts. The ball, about 8 inches through, was of skin stuffed with grass.

Shinny variant.---A circular form of shinny was played with one goal hole about three inches in diameter. The ball was a "birch" knot.[139] Players stood in a circle, one side defending the hole, the other attempting to put the ball in it. The sticks were the usual ones of chaparral wood (Ceanothus, manzanita ?).

525 Shell dice game.---A curious game was described by M.N. It was a favorite of old people, especially women. Sand, in which there were a few shells, was filled into a circular tray. Then "two people turned the sand over with their hands. The one that does it best gets the stick (counter)." There are shells in the sand. The score is made according to how the shells fall. The winner would get a prize -- food, money, a nose ornament, or ear plugs with quail feather ornament, etc.

Stave dice.---A flat stick of elderwood, about five by one inches, was thrown with a handful of elderberries onto a flat surface. If the carved side of the stick was uppermost, the thrower won one point; if not, or if the stave was concealed by the berries, nothing was made, and the opponent took the next toss. This game was accompanied by songs.

526 Spear-throwing game.---A screen of boughs ten to fifteen feet high was erected, and on each side, some ten feet in front and behind it,

[824] [139] The notch (sic) of wood is from a tree growing by the creek; it has white bark, dark slightly roundish green leaves. When the wind blows, the leaves rustle. The bark pulls off horizontally. The tree has dark colored little burrs on every limb. Thrall and interpreter suggest birch; probably sycamore. -- A.H.G.

W Y 844 waist and over the abdomen, and gave her a cup of hot medicine made by boiling kičena ʻoša[170] in water.

In case of difficult birth a shaman was W Y 845 755 called. He talked to his supernatural helper, pressed his patient's belly, rubbed it with his talisman and blew on it. No singing, dancing, cutting, or sucking was done. Usually a woman called on her own supernatural helper on such occasions: it was chiefly for such purposes that women sought power. Informant D. referred to the Wukchumni M.L.'s power in aiding childbirths.

W Y 844 The shaman was the only man present. The husband, at the time of delivery, moved out to sleep at the sweat house and have his meals with some relatives until his wife had her cleansing ritual. Some men observed a meat tabu during this time.

At the birth of the child the midwife cut its cord (dos) with a section of split cane (kadkɨd) and tied the stump with milkweed string. The afterbirth was buried; it was never put in water or in an anthill.[171] The baby was bathed at once in warm water. It was then wrapped in a rabbitskin blanket and bound W Y [853] to a forked-stick cradle (akhɨ ʻlɨč). The use of a soft mattress-cradle was denied by D., as was the use of shredded bark, moss, or any other type of diaper.

The navel stump came off in three to six W Y 846 [856] [777] [237] (theoretically six) days. It was put in a bead-decorated skin case and hung on the cradle hood for the infant to play with. If the stump were not kept, the baby would crawl around on the ground searching for it and would never learn to walk. It was preserved throughout life "for good luck."

A hot bed of stones and ashes had been prepared for the mother in her own house and on this she lay, covered with deer and rabbitskin blankets for six days. She lay on her back (D.). Each day, either in the morning or evening, she steamed the vaginal tract. Brake fern (toʻoʻdi) W Y [824] was boiled in a big basket of water. The woman sat on the edge of a log, or on a stick resting between two forked stakes, with the steaming basket between her legs. She covered herself and the basket with deer and rabbitskin blankets, and remained until the steam was exhausted. The process of steaming was called teʻʻenaʻošita, and was not used for any other purpose by anyone (D.).

For six days, while on the hot pit, the mother drank copiously of hot water and acorn gruel, her only sustenance. After that she ate seed and acorn mushes but kept the meat tabu for three months, when her cleansing ritual took place. A woman who failed to observe the

---

[170] A tall plant with purple blossoms growing abundantly in the mountains.

[171] But D. said the Tsudzuhi put the afterbirth in an anthill; and had heard of others who did.

2: Kroeber E-5 (ca. 1918) 1953
NS29 Yokuts NS29

Chapter 35.

THE YOKUTS: THE CONCRETE BASIS OF LIFE.

Dress and bodily habits, 519; houses, 521; the food problem in California, 523; Yokuts plant foods and their preparation, 527; the mortar, 527; the taking of game and fish, 528; the bow, 530; boats, 531; textiles, 531; cradles of the Yokuts and other Californians, 534; pottery, 537; pipes and tobacco, 538; games, 538; æsthetics, 540; the type of Yokuts civilisation, 542.

DRESS AND BODILY HABITS.

Clothing sufficed only for the very limits of decency, as we see them. Men wrapped a deerskin, *sep*, around the loins, or went naked. Old men in particular were wont to go without even this covering. Boys and little girls also were nude; but from the time of puberty on women wore a two-piece fringed skirt of the usual Californian type, the hind part larger. With the Yaudanchi, both portions were made of willow bark, as among the Mohave. The Chukchansi made the back piece of buckskin, the front of pounded masses of a long grass called *chilochul*. The well-known rabbit-fur blanket protected against cold and rain on occasion, and was excellent to sleep in. Moccasins of deer and elk skin were worn only as there was special need. Rude sandals of bear fur have been reported as worn in winter.

Women's hair was worn long, but for men the custom was more variable. Both sexes were wont to gather it under a string when at work. In mourning, men burned their hair off to the neck, women, for a near relative, close to the head. A glowing stick was used, and the Chukchansi controlled the singeing with a natural comb of *tumu*, which has close-set parallel branches.

Women, but not men, had their nose septum pierced for ornaments of bone.

Tattooing was more practiced in the north than in the south, and more extensively by women than by men. It ran in lines, zigzags, and rows of dots, chiefly down the chin and across from the corners of the mouth; the Mono style of marking the upper cheeks was not followed. The general type of women's face pattern tolerated infinite individual variety, as in the Yuki region; the Yurok and their neighbors clung strictly to a tribal style. Chukchansi women might be tattooed across breast, abdomen, arms, and legs also. The method followed was to rub charcoal dust into cuts made with flint or

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Yowlumne

as the Kaweah River and Tejon Canyon, back of present Tejon Ranchos Headquarters. 796 574

YOWLUMNE BOWS AND ARROWS

The Yokuts Indians of the San Joaquin Valley had probably developed the science of hunting with the bow and arrow further than had most Indians. The Yowlumne, of Kern River, were foremost among the Yokuts in this work. At least three types of bows were made. The most common of these was a bow made of elderberry wood. On first thought it would seem that this material would be the most unsuited of any, but it makes an excellent bow. It can be secured in long, straight, clear staves and can be made into as heavy a bow as is wanted. It has a smooth, strong cast, which it does not lose for many years. 411 824

I once carelessly put a strung elder bow in a closet and did not discover it for more than a year. I unstrung it and stood it in a corner near my desk. In twenty minutes it was as straight as ever and had as good a cast as when it was first made. Elder-wood bows were easily made and were used exclusively in the San Joaquin Valley by boys for hunting all kinds of small game, and even by men for hunting antelope, deer, and elk. Strings for these bows were made of either hemp, sinew, or milkweed fiber. [283]

Good bows were made from native laurel, or bay wood. This tree grows in the Sierra in clumps of many small, straight trunks. It is easily split into staves, which are stronger for their size than those made of elder-wood.

Aged Yowlumne Indians state that the Frémontia of the Sierra can be used to make a complete hunting weapon—bow, string and arrows. They say that the bark can be stripped off and twisted into a good string. The large branches can be split into staves and the small, straight branches made into arrows. With a few primitive tools a disarmed Yowlumne in a few hours' time could manufacture a complete hunting weapon. [283]

The finest Yokuts bows were made of juniper and were backed with sinew. Juniper staves were traded from the Monache, or Piute to the east, or were secured in Yokuts territory in the upper Coast Range mountains. Bows of juniper were shorter than those made of other woods. They required more skill and labor to produce and were highly valued. [439]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Yowlumne

The great variety of San Joaquin Valley game also made useful the two-piece arrow. With only a few good arrow shafts, a Yokuts could quickly attach a point to shoot squirrels, birds, ducks or any kind of game he saw. There was another very important reason for using the two-piece arrow, especially in hunting large game, such as antelope, deer, elk, raccoon, wild cat, fox, and mountain lion. Raccoon, wild cat and mountain lion would fight the arrow with their paws. They would break the arrow off, generally inside their bodies. Antelope, elk and deer would do the same by rubbing against brush, trees, rocks, or tules. Then the wound closed and much of the bleeding stopped.

It was not often possible for a Yokuts hunter to kill large game outright with a bow and arrow. The Yowlumne found it necessary to follow antelope and deer for several hours, and sometimes days, before they became helpless from bleeding. So it was important to continue the initial bleeding as long as possible. When a wild cat or lion clawed at a foreshafted arrow the long mainshaft immediately fell free, leaving the foreshaft projecting from the wound. The Indian picked up the dislodged mainshaft, replaced the point, and followed the wounded animal.

The foreshaft was made of the toughest wood the Indians could secure, generally live oak, chamise, or wild lilac (ceanothus). It could not be broken easily and the barbs of the arrow prevented its being removed by clawing, or by being rubbed against brush, trees, rocks or tules. But the constant effort to remove it by these means stimulated the flow of blood and hastened the collapse of the injured animal.

The sinews attaching points to game foreshafts were water-proofed by a coating of asphaltum. Otherwise the blood would soon soften the sinews, allowing the point to become detached and the foreshaft to be drawn from the wound.

The sinews attaching points to war arrows were not waterproofed. An Indian was more intelligent than the wounded animal. He could twist the foreshaft about and remove it, together with the stone point. For this reason the stone points on war foreshafts were attached as loosely as possible and the sinews were not waterproofed. As soon as they were wet with blood the sinews loosened and allowed the point to remain in the wound when the foreshaft was removed.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Yowlumne

411 Arrows were commonly fletched with feathers from the tail of the red-tailed hawk. Feathers from the wings of this 237 hawk were also used. When red-tailed hawk feathers could not be secured, tail and wing feathers were used from the other native hawks, and sometimes from the great horned owl. Feathers were fastened to the mainshaft by means of sinews [823] which were commonly waterproofed with asphaltum. Feathers were trimmed to shape with the glowing edge of a fired piece of sycamore bark.

411 Yowlumne Indians state that the best arrow shafts were made from long, straight shoots of spiny gooseberry. These ●824 were very strong and, when once straightened, remained straight. But most arrow shafts were made of the heartwood of buttonwillow, which was also very strong. After it had been straightened and hardened by being seasoned over a fire, or on a heated soapstone arrow straightener, it also retained its shape very well. The native cane or bamboo was also used for making arrow shafts. These were straightened on the heated [258] soapstone arrow straightner. The Yowlumne also harvested a crude sugar from the leaves of this same cane in much the same way that salt was harvested from the leaves of salt grass.

411 Spears were also commonly used by the Yokuts. For some kinds of hunting they were used almost entirely. Raccoons and [224] bears were most often killed with spears. There were two kinds of spears. One, to be held in the hands and used for repeated thrusts, was short and heavy and was made of one piece of elderwood.

[824] A second type of spear was actually a primitive javelin. The shaft was also made of elderwood, was tapered smaller toward the rear, and was from five to six feet long. Javelins were foreshafted like the two-piece arrows, but used a much larger stone point, some as long as four inches. As all spears [823] might be used in the water (but never to spear fish) all sinews were waterproofed with asphaltum.

A roll of tules was also fitted to the foreshaft of the javelin when it was thrown at raccoon, beaver, or otter in the water. This converted it into a skip-bomb weapon.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Wukchumne

123 438 484 been made into a mass of partially decomposed granite, with an overburden of about ten feet of soil. Soon Ada grunted again, and the whole expedition gathered around her. With a sharpened stick, which she used to dig basketry roots, she was digging into the soft granite and removing chunks of a heavy [317] blue-black material which she called *Kodeen* (Ko'-de-en). This, 135 I have since been informed, is a form of crude graphite, which was deposited in crevices in the top of the granite.

386 While the rest dug, Ichow explained to me how the old-time Yokuts used to prepare paint from this material and how they used to paint with it after it was prepared. A fire of dry oak wood was burned down to a heap of red coals. Then the graphite was dumped into a hole in the center and covered with hot coals from the rim of the fire bed. This was left until the entire bed of coals was reduced to ashes. After the whole mass had cooled, the burned graphite was carefully removed and placed in a bag of tanned deer-skin. Ichow later burned some of the material we gathered that day, but he did not follow exactly his own directions.

When the wood had burned to a mass of red-hot coals, Ichow placed the graphite in a portion of the bottom of a broken cast-iron kettle and sank it in the coals where it soon became red-hot. Within a couple of hours he removed the container and set it aside to cool. When I examined the material I found that it had changed character and color. Instead of being composed of several lumps of hard, heavy, blue-black material, almost exactly like the Rising Sun Stove Polish in use when I was a boy, it had slacked into a fine, sooty, black powder, in appearance like commercial lamp-black, but heavier.

[302] In this manner was gathered and prepared the black paint for which the ceremonies of the Yokuts tribes were famous. Officials who danced in these ceremonies painted their bodies black. In some tribes white stripes were painted across the chest and abdomen, vertical white stripes on the legs and arms, and large white spots on the face.

[433] White for this painting was prepared from diatomaceous earth, some of which was traded from Yokuts who lived in the Coast Range of mountains. One deposit of this crude chalk lies [317] near Lompoc and another near Crow Creek in Western Stanislaus County. It provided a pure white pigment.

[304] Both of the above pigments were mixed with plant juices to form a paint. One of my authorities, *Pahmit*, a *Dumna*

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29
Wukchumne

Yokuts from Friant, informed me that his people used only oil from the seeds of the chilocothe, or wild cucumber. The other, Ichow, stated that the Wukchumnes mixed this oil with sap from the tall, blue-grey milkweed from which they gathered fiber for manufacturing string. This same sap was also made into chewing gum. In my own experience I have found such gum to be exceptionally durable, and anything but palatable.

Crowned with the standard Yokuts *Juk* (Jook), or dance headdress, the dancers were certainly spectacular performers when they surrounded the glowing fire during the annual dance for the dead. It is not surprising that pioneer whites who saw this dance likened the performers to dancing skeletons.

After about ten pounds of graphite had been gathered, Ada grunted again and the entire party began searching the soil above the decomposed granite. Then came another grunt and again we all gathered about her. She dug from the soil a round hard nodule of light-colored clay. In about two hours three of these nodules were excavated and, together with the graphite, were loaded into the car among the thirteen pairs of feet.

Where the grocery store had once stood at the old ghost village of Aukland we unloaded again and ate our picnic lunch in the shade of an oak tree. Ada murmured a few soft Yokuts words and Ichow explained for her that the old buildings just below us were once the home of Perry Byrd, father of Mollie Byrd who became the wife of the famous outlaw and train bandit, Chris Evans. When the Ichows first saw Chris he was working for Tulare County. He came along with a road grader and interrupted their work when they were gathering black paint material.

As we ate our lunch, Ichow explained to me that for many generations his people had visited the place, which they called *Hutudu* (Hoo'-too-doo), Hoot-Owl Place, to gather the material for black paint and the clay for making pottery. Although the deposits were in the range of the Wuksatche tribe, "They were our good friends and they let us come and dig whenever we wanted to. We had a big picnic when we came and traded basket roots, just like we do today," said Ichow.

Our work and lunch had delayed us until it was almost two o'clock in the afternoon; so I told the Indians we would have to hurry, as I had a dinner engagement in Tulare. In less than a minute all were packed in the car and we were on the road to

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

travel uncomfortable were brought by the white man. It is probable that in some instances, particularly in rocky, brushy country, some sort of moccasin was used.

It is interesting to pass along the roads of the San Joaquin Valley with the Indians of the older generation and have them point out the plants which came with the white man and those which are "old timers." Among the introduced plants are fox tail, cockle burrs, Spanish thistle, puncture vine, sand burrs and many others, any one of which would have forced into the language of all Yokuts Indians a word for some sort of foot covering.

YOKUTS WOMEN'S DRESS

As regards dress, the Yokuts woman was, until the year just passed and the coming of the "new look," quite modern, short skirts and no stockings having been in style for many years before Hollywood modes were adopted. Painting was not unknown, although it was often done in permanent form by tattooing.

The Yokuts women often wore bangs and allowed the remainder of the hair to hang loose over the shoulders, or gathered and tied it behind the neck. Young unmarried women are said to have made themselves more attractive by separating the hair at the back and forming it into two wrapped coils, bound by strings of beads or other bright ornaments. This practice was called *pin-ke'-itch*. They sometimes wrapped string around their heads and stuck feathers under it at the back of the head. In this they followed very closely the ancient customs of their red sisters throughout America.

When in mourning for a brother, sister, father, mother, husband, or grandparent, it was in some tribes customary for Yokuts women to bob their hair. It was cut off short across the back, sometimes by means of a piece of glowing sycamore bark, the hair being clamped between the parts of a split stick. They called this operation *hu-pahn'-man*. [during the period of mourning there was a tabu against washing, or bathing and the eating of meat]. The hair removed was tied to a rock and thrown in a deep hole in the river. I have been assured by individuals of tribes among whom I have worked, that none of their people would have used or even preserved hair removed in this way; this in spite of the fact that I have found in Yokuts graves numerous lengths of cord, made of twisted human hair.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

It is surprising to most persons that the life of the Indians was so complex. It requires volumes to recount the many details of their life regarding the securing and preparing of food stuffs, wearing apparel and the multitudinous materials utilized by them. Even at the present time the surviving full-blood Yokuts Indians will be found to have within their houses in addition to the food stuffs known and used by us, many additional seeds, plants, roots, herbs and other materials. It is impossible to attempt to cover all of these things in detail.

THE MOTHER-IN-LAW PROBLEM

Probably the most interesting convention of the Yokuts was their custom concerning the relationship between the mother-in-law and son-in-law. When the young Yokuts man married, it was in some tribes customary for him to go to live with the parents of the bride for a period of time approximating one year. During this time he helped with the hunting and other arts and pastimes and shared the responsibilities of the head of the house. Out of this practice there developed a problem which civilized people only too well understand and which led to the mother-in-law taboo. Among tribes where this practice was common, it became customary for the son-in-law never to speak to the mother-in-law and for the mother-in-law never to speak to the son-in-law.

There was no ill feeling between the two because of this. It was simply a necessary custom, and they conformed to that custom religiously. It is said that in some tribes the mother-in-law, upon meeting the son-in-law, would turn to one side and cover her face. This probably represents the custom at its extreme practice. Among some tribes no taboo of any kind was known.

As the period of sojourn with the bride's parents was over, the young couple removed to a distance varying from a few yards to a half mile or more, as the experience of the past year would seem to dictate, and built for themselves a home.

The following experience was related by a man who worked for many years among the Yokuts. He had traveled many miles in the heat of summer to visit a Yokuts basket maker on one of the Sierra streams. Upon arrival at her little shack, after a walk of several miles from the end of the road, he found that she was gone upon a long trip for the purpose of gathering roots and other materials for basketry. At home were the husband and an elderly lady, who was a stranger to the visitor.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

threw the basket in which she had been gathering acorns, sometimes also a child three or four years of age. This burden often reached a weight of about two hundred pounds.

During the summer of 1930 the writer saw one of the two then surviving *Nutunutu* (Noo-too'-noo-too) women carrying just such a load. She had waded Kings River in water almost to her waist and was just starting on a three mile trip to Del Piedra. Although she would undoubtedly have traveled the entire distance without resting, it is of interest to note that she willingly, and probably very gladly, accepted the offer of a ride.

The ahngush is carried with the large portion slightly below the level of the head and is held in place by a flat strap, called *sho-mit'-te*. A basket cap was often worn under the carrying strap. This protected the head of the moke. The Indians call this cap *wah-coo'-moots*. In the foothills the fiber for making carrying straps is obtained from a tall milkweed called by the Indians *hung'-uts hung'-uts*. Along the streams in the valley the fiber is often obtained from wild hemp, called *shock'h*, and sometimes from the fiber of the nettle, called *tro-we*. The strap is passed around the basket about half way between the top and bottom and across the upper portion of the forehead.

It will be appreciated by any one that great effort was necessary to bring a two hundred pound burden from the ground to the back of the moke. The basket was sometimes lifted upon a rock, or in the fork of a small tree, or upon a bank. The moke then placed her back against it, pulled the strap over her head, and walked away with it. Sometimes other Indian women, who were helping to gather the acorns, would lift the basket and place it upon her back.

Upon arriving at the rancheria, the acorns were placed in a granary. This granary was made of small branches which were bound into a circular form. The bottom of the granary was sometimes a foot or more above the ground. The granary was lined with grass and the acorns emptied into it. Some aged Indians have stated that this grass is both moth and squirrel repellent. The top might be eight or nine feet above the ground. These granaries would hold from ten to thirty bushels of acorns.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

CHAPTER IX

BASKETRY

YOKUTS STITCHED BASKETRY

The Yokuts tribes will probably be noted throughout all time for the wonderful basketry which they manufactured. There were several types of this basketry, as well as a number of forms. These baskets, mortars, steatite vessels, round wooden boxes, dried animal bladders and crude bags were the only containers known to these Indians.

Practically all of the Yokuts baskets were of coiled construction. They were not woven, but were stitched together. This process was much slower and more difficult than that of weaving, but produced a basket as strong as though it were made of sheet metal. Many Yokuts baskets were used for cooking and, when completely dry, would become water-tight twenty or thirty minutes after they were placed in water.

The filler, or coiled material, was obtained from a tall grass which grew in clumps along the valley streams and sloughs. To pioneer white cattlemen of the Joaquin this was known as bunch-grass (Epicampes Rigens). It had no joints, being perfectly smooth from one end to the other, and attained a length of more than four feet. The Indians called this material *chaw'-kish*.

The white, or light, straw colored material with which the stitching was done, came from the root of a swamp grass (Cladium Mariscus), which was at one time quite common throughout the entire overflow area of the valley

Cladium roots attain a diameter of about three sixteenths of an inch and a length of three or more feet. Yokuts women still dig it from the ground by means of pointed sticks. The bark is removed from it and it is split into two, three, or four parts.

The splitting of this material requires great care and much practice. One piece is held between the teeth, the other two between each thumb and the next two fingers. By equalizing the pressure between the two hands and the teeth the root is split into three equal parts. In this way Yokuts women can split a root four feet long into three parts so even in size that the dif-

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

The material used in stitching to produce the red portion of the designs is prepared from redbud (Cercis Occidentalis). This is the beautiful shrub of the Sierra which is covered with magenta colored blossoms during the months of March and April. The outer wood is stripped from the slender shoots of redbud. These strips are a permanent red on the outside. Their color greatly resembles manzanita bark. The Yokuts name for this material is *ah'-nup*. 285 824

Some basketry designs make use of black stitching material. This is the root of the bracken fern (Pteridium Aquilinum) and is the only basketry material which is artificially colored by the Yokuts. It was necessary for the valley Yokuts tribes to secure this root by trade. The root of the fern was stripped into thin pieces. Some reports state that the pieces were then buried in the dark mud of a spring for several weeks. In discussing the coloring of the fern roots with the Wukchumne I found that they used a different method. They boiled the root in a quantity of black mud from the sloughs, or tule swamps. This produced a dead black, which is quite permanent. [386]

I have collected pieces of ancient burial baskets which had been exposed to light for at least seventy years, to find the red and black of the designs almost as bright as those of recent work. The Yokuts call the black stitching material *muh-no'-kits*.

The awl used in stitching was made from the shin bone of a deer. One bone was split and two awls made from it. When completed they were from seven to nine inches long. From time to time the tip of the awl was broken. A new point was formed by whetting the bone on a piece of sandstone. When the length of the awl was reduced to about three inches it was discarded. The Yokuts call this awl *bah'-oak*. 285 412 [237]

YOKUTS WICKER AND TWINED BASKETS

In addition to the *ahketse* (ah-keet'-se), or baby cradle, the Yokuts tribes made several receptacles of wicker construction. The material used was either young black willow or cottonwood shoots. The *Wukchumne* say that young cottonwood shoots are better than willow, that they do not become so brittle with age. 285 [824]

The most common wicker-work utensil is a sort of colander, or sieve. This is used in sifting the chaff of the dried salt grass after it has been flailed, and in separating trash and 285 415

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

in excellence of stitching, but in mathematical regularity of detail. 285 531

In addition to those designs which are worked into the basket itself, it is often embellished with the feather top-knots of quail. This was particularly true of the bottle-neck, or *aw'-suh*, of the Yokuts of Kaweah, Tule and Kern Rivers. In addition, various kinds of beads were sometimes fastened to the outside of the baskets. [237]

It must be appreciated by readers that in an article of this nature, which has already exceeded proper limits, the subject of basketry designs can scarcely be approached. In addition to the forms already discussed there are countless numbers of designs reproducing almost every possible geometrical form. Some of them, we are told by basket makers, are used simply because they are *pah-yo'-me* (pretty).

It is of interest to note here that at least some of the basketry designs were used on the fabric made by the southern Yokuts. These tribes, the Tulamni, Tuhohi, Hometwoli and Yowlumne made many large circular mats or bags of fabric which probably were used for many purposes about their camps. However, the only uses of which we have definite knowledge are two, as shrouds for dead bodies and as linings for the sand basins in which acorn flour was leached. These fabric mats or bags were started of fiber thread much as were the blackberry gathering baskets and were twined, not woven. One piece of such fabric shows the rattlesnake pattern, worked in black thread. Although all existing specimens of Yokuts fabric have come from graves and are partially decayed, several designs can be distinguished on them. Material used in making Yokuts fabric is thought to be the fiber of the native hemp and/or milkweed. [286] [764] [172] [824] [283]

How the native woman was able, without pattern or example in nature, to bring into being countless numbers of beautiful designs and, with no tools other than a bone awl and a sharp rock, to form them into a basket, can never be comprehended by the layman until he has watched that work for many weeks. The artistic taste and mathematics involved in this one Indian art alone shows more plainly than anything else we know about them that the mind of the Yokuts Indian was equal to many many things far beyond anything that we have appreciated. [412]

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

ed to be able to read these paintings and have given lengthy and elaborate interpretations of the many characters which have been reproduced in the various designs.

I have often discussed Indian paintings with pioneer American settlers, with persons who claimed to have solved their meanings, and with the Indians themselves. I have found little justification for the great amount of importance attached to them and will attempt in the paragraphs that follow to explain something of the nature of the various paintings, as well as the probable extent of their meaning.

First of all we must remember that painting was not confined to rocks alone, but that breech clouts, bows, arrows, buckskins, and even the faces and bodies of the Indians themselves, were painted. If this is kept in mind, the reader will understand that the paintings upon the rocks were no great phenomena, nor were they really unique as the only example of such work done by Yokuts.

The writer is informed by persons who have seen Indians mix their paints, that the vehicle or binder used was often the sap from the common milkweed, mixed with chilicote or wild cucumber oil. With such a vehicle were mixed the various earth colors which were more or less common throughout the territory bordering the San Joaquin Valley.

White persons are too often guilty of overlooking things which are obvious to the Indian, or to the close observer. While driving through the Sierra foothills with a companion for the purpose of visiting some Indian paintings, I was asked where the Indians obtained their red paint. The explanation was made that the Indians used the natural earth colors, which were more or less common in the very locality through which we were then traveling. The companion stated that he could scarcely believe this, because he had never seen any of that color within a range of more than 150 miles. At this point the car was stopped and the discussion continued. After a few moments the cut bank at the side of the road was pointed out and proved to be an outcropping of the richest red earth.

The white color used was, in some cases at least, obtained from diatomaceous earth. The writer has found in Indian graves chunks of this soft chalk in the natural state as well as molded balls of white pigment prepared from the same material.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

192
802

NUMERALS:

1. *Yaet*
2. *Pu-noy*
3. *So-uh-pin*
4. *Hop-pu-noy*
5. *Yach-e-nil*
6. *Chu-luh-pe*
7. *Num-chen*
8. *Mu-nosh*
9. *Nah-nip*
10. *Treo*
11. *Treo yaet*
12. *Treo pu-noy*
13. *Treo so-uh-pin*
20. *Pu-noy treo*
21. *Pu-noy treo yaet*
22. *Pu-noy treo pu-noy*
23. *Pu-noy treo so-uh-pin*
30. *So-uh-pin treo*
31. *So-uh-pin treo yaet*
33. *So-uh-pin treo so-uh-pin*
50. *Yach-e-nil treo*
100. *Treo-treo*, [or ten tens]

192 The above list represents approximately one-twenty-fifth of the Wukchumne words collected by the writer, which in turn represent half of the complete vocabulary of the Wukchumne. They present only the common names which have not already been presented elsewhere in the text and serve to indicate how complete was the Yokuts vocabulary.

YOKUTS WILD FLOWER AND PLANT NAMES

824 One of the most amazing things concerning Indians is their extensive knowledge concerning their environment. This includes not only a knowledge of the geography of the country in which they live and the use to which the many things about them can be put, but also a vast fund of cultural information which to many persons of the white race seems useless.

The average Indian possessed a remarkable store of information about the varieties and species of plants and flowers with which he was surrounded at the different seasons of the year. The writer knows several educated Americans who have studied for years the wild flowers and plants of California, but

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

who do not possess an amount of information concerning these same plants and flowers equal to that which was once possessed by an intelligent ten year old Indian child.

The story was once told to me by Dr. C. Hart Merriam, noted authority on California Indians, that he obtained the name of a third and unknown species of manzanita from a *Miwok* Indian woman in the Sierra foothills below the Yosemite Valley. Two species of manzanita had already been studied for years and Dr. Merriam was attempting to find how far into the mountains the low-land manzanita grew. As both species were well known to the Indians, it saved much time to gather this information from them. He came to a little hut near a stream and asked the Indian woman who lived there how much further up the stream the low-land manzanita grew and whether the up-land tree extended down as far as her house. She hesitated a second, looked him in the eye, and answered, "They all *three* grow right here."

Dr. Merriam was sure that he had been misunderstood. While he was trying to explain to the Indian woman what was meant, she spoke two words to her eight year old daughter, who immediately left, and returned in less than one minute with three branches of manzanita. These the Indian woman took, and by means of the flower and leaf, pointed out to this noted scientist that they were from three different species of manzanita. He was dumbfounded. The means of identification used by the woman was that used by scientists and she had clearly identified a third species of manzanita. This noted man was kind enough to name this third species *Miwokiana*, after the tribal name of the Indian woman who first identified it.

Continuing in the vicinity for several days, Dr. Merriam became impressed with the amount of information possessed by the little eight year old girl. He found after continued questioning that she was able to identify more than 300 plants, birds, and animals common within a few miles of the cabin where she was born and was then living. Her mother knew more than 500 varieties.

Both the mother and daughter knew not only the names of the plants, but also where they grew, when they ripened, and whether the plant had any food or medicinal value. If it was of any value they knew what it was good for, how and when to harvest it, how to prepare and administer it. They could also

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

identify it among all other plants. If it was poisonous they knew that, and were careful not to mix it with other plants being gathered. This knowledge extended to the birds, animals and even to the surrounding rocks. This meant that for each thing identified the mother and daughter knew approximately ten related facts. The number of facts furnished to this noted scientist numbered many thousand. Of added interest is the fact that the data furnished by the daughter checked accurately with that furnished by the mother, a record never attained by white school teachers in formal education. What educated person belonging to the "superior" white race has an equal store of information about his immediate surroundings?

In the belief that the names of the various wild flowers and plants common in the San Joaquin valley will be of interest to readers, the following list is appended:

Amaranth, California	*Choi-ni choi-ni*
Brodiaea, Purple Harvest	*Ho-lo'-wih*
Brodiaea, twining	*Kang-wah wid-dah*
Baby Blue Eyes	*Ah-du'-trun shesh-eh*
Bush, Button	*Cu'-chuy*
Brickellia	*Kaw-wats-ah'-puh*
Bush, Silk Tassel	*Shin-way*
Bamboo or cane	*Kod-kid*
Columbine	*Dum-tin'-un in-dip'-its*
Calycanthus occidentalis	*You-mut*
Daisy, Yellow	*Chaw-wung*
Ericameria	*Chaw-dud'-pot*
Fern, Great Chain	*Mun-no'-kits*
Fern, Maiden Hair	*Le-wit'-tah*
Flax, blue	*Kah-wah*
Fern, California Golden	*Yaw-kow'-ho*
Houses, Chinese	*Tawk-haw'-daw*
Honey Suckle, wild	*Ti-you la-ou*
Harebell-Satinbell	*Tah-pu'-you*
Lotus, Hill	*Shah-dum'-its*
Lily, Leopard	*Yah-am'-yuh*
Mustard	*Tro-mud*
Mistle Toe	*Taw-do*
Milkweed	*Chet-tik*
Milkweed, woolly	*Che-tik*
Milkweed, narrow leaf	*Shock*
Monkey flower	*Chow-ahcu'-dah*

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

Moss, rock	*Yah-kow in-sum'-sum*
Poppy, Escholtzia, Californica	*Aw-wah e-tus*
Poppy, wild	*Yoh-eh me-yuh*
Rose, wild	*Haw-uh'-wus*
Sequoia (big tree)	*Toos-pung-ish*
Soap root	*Trak-quat*
Sunflower	*Wah-suh-wi*
Sagebrush, mountain	*Home-nuh*
Turkey Mullen	*You-huh*
Tulip, Mariposa	*Gow-me'-yuh*
Tulip, Star	*Cah-mi'-yuh*
Thistle, Drummond	*Sah-du'-dah*
Thistle, ground	*Sah-du'-dah*
Thistle, California	*Sah-du'-dah*
Thistle, Anderson	*Sah-du'-dah*
Tongue, Western Hounds	*Tah-dud*
Water Grass	*Kah-uh'-pe*
Weed, salt	*Sick-id Ku-you*
Weed, Tumble	*Tow-it'-chits*
Yerba Santa or Mt. Balm	*Kits-in'-ne*

EDIBLE AND MEDICINAL PLANTS

The practice of medicine by Indians is not often well understood. White settlers have generally stated that the Indian doctor practiced witchery. This is without question the truth. Two degrees were granted in medicine by the Yokuts—*Ahntru* (Ahn'-troo) and *Tripne* (Trip'-ne). Indian doctors first attained the Ahntru degree. They could cure complaints with roots and herbs and some claimed to be able to cure by magic. Both men and women might be Ahntru. The Tripne Indian doctor, or medicine man, was a shaman, or fakir, and was called in after practical medicines had failed. He was feared by the rest of the tribe and upon the death of his third patient, or when he was suspected of having used his supernatural power to cause a death, was himself generally put to death.

The practice of the Tripne medicine man consisted of a weird sing-song chant for the purpose of driving away evil spirits, of blood letting, of pounding and hammering the patient, and of the pretense of removing the pain by means of cutting and drawing off the blood and object causing the pain from the cut through a tube or the hollow of the hand.

3: Latta Y-5 (1923-1948)1949 NS29 Yokuts NS29

chief and other important members of the tribe, including sometimes the medicine man. Among some tribes the drinking took place in the open after the talk by the chief. 881 276

Immediately after the drinking of the tea, which was very bitter and often caused repeated vomiting, necessitating the drinking of large quantities of it, the young initiate was given into the care of some old and respected member of the tribe. It is said by some Indians that this man was generally selected by the father of the boy because of some attachment which the boy had formed for him. He became a sort of godfather or counselor. This relationship often continued throughout life. It is said by early American settlers that, before entering into a bargain, it was not uncommon to see a Yokuts seventy-five years of age go for advice to his godfather, who was ninety. [608]

When given into the charge of this godfather the boy was taken into the hills beyond, or along a stream, and watched over and counseled until the period of stupefaction had passed away. This is known to have lasted several days. During this time the initiate was instructed in the tradition and history of his tribe and was given such advice and instruction as was calculated would make him a good citizen among his people.

Among some tribes this ceremony was the most elaborate of any they performed. Ceremonial equipment of the most spectacular kind was exhibited to the young tribesmen. This equipment was often never seen by him again and was calculated to impress him with the importance of his duty to the tribe.

The visions produced during this exhibition, due to the nature of the narcotic taken, undoubtedly created a deep impression and lasted throughout life. I have in my possession three large spear points which are thought to have been a part of such initiation equipment. The largest is approximately eleven inches in length and two inches in width. The smallest is about nine inches in length. These would undoubtedly have been wrapped in protecting moss and buckskin and given to the care of the property man of the tribe, who guarded them between the times of their use. [787]

It is of interest to know that even the seeds of the Jimson Weed were thought by the Yokuts to have supernatural power. The seed would keep off sickness and prevent bad dreams. I have in my historical collection a necklace of these dry seeds made in 1932 by a Tachi woman and presented to a member of my family for the purpose of warding off influenza. 751 824

4: Gayton E-5 (1925-1930)1946

NS29 Yokuts NS29

settled; next a season of warmth with stream, river, and lake floods, and stirring plant growth culminating in the massive blooming of field flowers and foothill shrubs; and then the long hot dry season of harvest seeds bringing a constant drift to temporary camps which ended with the gathering and storing of the staple acorn crop.[10]

The ceremonial round of Yokuts culture was closely fitted to the seasonal cycle of plant and animal activity. There was no winter ceremony unless possibly the oho'wiš, an indoor curing ceremony and shamanistic display involving fish and water animals.[11] This was a time for evening instruction by the telling of myths and by the forcing of boys and girls 10 to 15 years of age to rise in the night and bathe in chilly waters. Austere men concerned about their supernatural power and spiritual vigor would do the same. Indoor occupations flourished, although men hunted daily unless the weather were excessively wet and cold. Houses were patched against winds and soaking rains. Acorns were brought from main storage bins to individual store houses, thence to the dwelling to be shelled as needed. Men and women gathered in houses at dusk to drink the lime and tobacco emetic, then retired home to dream and secure supernatural benefits. By mid-December prospective datura-drinkers began to refrain from meat-eating. Shamans danced to prevent general sickness or to predict the next summer's seed crops.

In late February or early March came the first public ceremony, the drinking of tañai *(Datura meteloides)* by youths and others seeking special knowledge: dream help, second sight, or a view of their future life. This was never held later in the year because the plants were "too strong." The spectacle was attended by people of the local and adjacent communities. For the participants, the critical period was the twelve days prior to the drinking, in which a semi-fast was maintained, and the twelve following days during which meat was still tabu; at the conclusion of which time, as with all Yokuts festivities, a feast was given and meat eaten.

Soon after this (late March, April, and early May) the lavish, colorful blooming of wildflowers engaged Yokuts attention. Crowns of flowers, constructed like the shaman's feather crown, were worn by young and old of both sexes; armloads of flowers were plucked and danced to with special songs.

---

10 Twelve "moons" were counted and named by both Yokuts and Western Mono, but no ethnographer has the complete record.

11 Described by both Kroeber and myself, not fully understood by either in description, meaning, or extent; not listed by Driver (A. L. Kroeber, *Handbook of the Indians of California*, Bulletin, Bureau of American Ethnology, no. 78, 1925, p. 507; Driver, *op. cit.*).

4: Gayton E-5 (1925-1930)1946
NS29 Yokuts NS29

Pleasure came from their beauty, their fragrance, and their indication of a plentiful seed harvest to follow. Winter rainbows forecast plentiful seed crops, for they were seen as four bands of color (magenta, blue, yellow, orange) of four flowers whose seeds were prized.[12]

In April, when rattlesnakes were rousing from hibernation, came the very important Rattlesnake Ritual, sponsored by the shamans controlling the creatures, and participated in by all persons as a preventative from injury by rattlers during the summer months. This ritual, which included a snake-handling display and concluded with a feast, was attended by both local and extra-community persons.

On the lower Kings River, the Choinimni (Y) and probably other tribes within the area of the spring salmon run (about May) held a simple river-side ritual at their principal fishing sites. The local chief ate the first salmon speared, after cooking it and praying to Salmon for a plentiful supply. Then others partook of a salmon feast, and the season, so to say, was officially open. (Some foods were "moiety-owned," e. g., blackberries and mushrooms north of Kings River; the possessing moiety collected but could not partake until they had feasted the other moiety with the food.)

Disruption of village life came in late spring or early summer—from May onward, depending upon the condition of the seed harvest. Chiefs directed the general exodus in a minor way, publicly stating that now was the time to go, and families departed for their habitual summer camps. At these, men caught fish and small game which they dried for winter use, and, as the women collected loads of seeds, transported the heavy burdens back to the village storage bins. There were no special ceremonies for this season of dispersed households; instead local and more spontaneous entertainment took place: there is record of shamans dancing at summer camps; there were pleasure dances in which both sexes participated; children played late in the long evenings; and stories (myth-instruction) were tabu. Camp locations varied with the change of crops—toward the valley, into

---

12 Play with flowers, so incompatible with conventional notions about Indians, was widespread in the West. Without especially seeking them the following references come to hand for Miwok, Maidu, Pavioso, Klackamas, and Taos: S. A. Barrett and E. W. Gifford, *Miwok Material Culture* (Bulletin, Public Museum of the City of Milwaukee, vol. 2, pp. 117-376, 1933), pp. 222-223; Stephen Powers, *Tribes of California* (Contributions to North American Ethnology, vol. 3, Department of the Interior, United States Geographical and Geological Survey of the Rocky Mountain Region, Washington, D. C., 1877), p. 325; Robert H. Lowie, *Notes on Shoshonean Ethnography* (Anthropological Papers, American Museum of Natural History, vol. 20, part 3, 1924), pp. 306-307; Melville Jacobs, *Texts in Chinook Jargon* (University of Washington Publications in Anthropology, vol. 7, pp. 1-27, 1936), p. 12; Elsie Clews Parsons, *Taos Tales* (Memoirs, American Folklore Society, no. 34, 1940), p. 121.

4: Gayton E-5 (1925-1930)1946
NS29 Yokuts NS29

the Yokuts (e. g., Salinan, Chumash), while collectively unknown eastern groups were called mountaineers (do´mtui). The north and south dimensions of the valley are greater, and tribal contacts in the floor of the valley were so aligned along the water flow between Kern, Buena Vista, Tulare Lakes, and the lower San Joaquin River.

Of the two other directions, up (ti´pin; sky, above) and down (ati´l), the latter had no special significance beyond myth reference to an underground gambler whose home might be reached via a badger or gopher hole.[20] Upward, "aboveness," was of great religious significance, the embodiment of sacredness and supernatural power. Veneration was manifest in many ways, especially in a religious-motivated looking upwards, looking at the stars and sun with prayerful phrases on the lips, basking in the sun, getting magic "airshot" from the sun during shamanistic contests. Supernatural power was called ti´pni; it was the essence of all "aboveness" and the power derived therefrom, though the term might be applied to anything weird, holy, or peculiarly hyperphysical.

To the earth itself (di´nit) there was no special attitude, nor to the plants growing on it save the narcotics tobacco (so´´og) and *Datura* (ta´ñai). For example, for all the essential uses earth was excavated without special concern—house, sweathouse, or grave pits, for pottery, colored earths for paint. Similarly ordinary stones were taken for implements, motars and pestles, though previously shaped stones such as the "charmstones" of weather shaman, were regarded with awe, as ti´pni.

On the other hand, water (i´dik), especially that of springs, was venerated: "water is immortal because it is everywhere; it is living all the time." Springs were addressed prayerfully, sacred eagle down was scattered near them, and a little water was sprinkled on oneself with a request for long life. Other expressions of this attitude are found in early morning bathing (more than a mere cleansing act), and in myths, wherein submersion or application of water was the standard method of magical resuscitation.

The stars were not ignored; on the contrary, the Morning Star especially was of great importance: people should be up in time to see it, greet it with a prayerful request for "a good world" and longevity. The Pleiades gave luck to gamblers; other stars were dangerous lures to men. Eclipses of moon or sun were hailed with shouts of discouragement, and excessive thunder was admonished to cease. In short, even heavenly bodies were part of the immediate, reachable environment.

Aspects of time, of the place of animals and of man in the world were em-

20 There was no concept of stratified worlds, or of previous and successive worlds.

10: Beals & Hester E-4, 5 (no date) 1958
NS29 Yokuts NS29

their neighbors raised their sleeping places on a low frame of willow poles.[10]

The settlements to the west apparently suffered from lack of water and during the summer and fall dry season residents in those villages commonly moved to the vicinity of the lake. Gayton says: "On the west side was a comparatively barren area, almost treeless and waterless, practically uninhabited, used little save for rabbit drives..."[11] In contrast, the residents of permanent villages on the lake frequently left during the summer to gather seeds and to hunt. Apparently they usually went eastward, if they traveled any distance, and in part collected on lands used by some of their eastern neighbors.

The economy of the Tachi was dominated by the resources of the lake and its tributary sloughs. The tule provided essential materials for house construction and for the making of balsas which were essential for the exploitation of many of the lake resources and were used extensively in transportation as far away as the east side of the San Joaquin Valley. Tule roots and seeds provided a major part of the vegetable food, and the *Tular* harbored small animals and the tule elk. The major subsidiary vegetable foods apparently were the bulbs of the brodiaea, easily obtainable in quantity in sandy spots, and grass seeds. In part, the latter were obtained from marked plots owned by particular women and inherited by their daughters, a sister, or other female sociological relative. Acorns are rarely mentioned and when obtained were apparently either secured by visits to the territory of other groups or were obtained in trade. The Choinimni to the east are especially mentioned as floating down the Kings Rivers on balsas to exploit the lake resources and to bring acorns and other materials in trade.

The river mussel (*Anodonta nuttaliana* Lea) probably was the most important source of animal protein. Other less abundant mollusks were utilized and fish were fairly important in the diet. The terrapin (*Clemmys marmorato*) and waterfowl were important resources.

In contrast land mammals apparently were not abundant. The largest, the tule elk, was snared or speared in the tule swamps but apparently seldom was attacked on dry land. During most of the year, the area offered little food for grazing animals such as the antelope. Even rabbits seem not to have been abundant, for the Tachi apparently

[10] GAYTON, 1948, p. 13.
[11] GAYTON, 1948, p. 6.